

STN Columbus

NEWS 1 Web Page for STN Seminar Schedule - N. America
NEWS 2 MAY 01 New CAS web site launched
NEWS 3 MAY 08 CA/CAplus Indian patent publication number format defined
NEWS 4 MAY 14 RDISCLOSURE on STN Easy enhanced with new search and display fields
NEWS 5 MAY 21 BIOSIS reloaded and enhanced with archival data
NEWS 6 MAY 21 TOXCENTER enhanced with BIOSIS reload
NEWS 7 MAY 21 CA/CAplus enhanced with additional kind codes for German patents
NEWS 8 MAY 22 CA/CAplus enhanced with IPC reclassification in Japanese patents
NEWS 9 JUN 27 CA/CAplus enhanced with pre-1967 CAS Registry Numbers
NEWS 10 JUN 29 STN Viewer now available
NEWS 11 JUN 29 STN Express, Version 8.2, now available
NEWS 12 JUL 02 LEMBASE coverage updated
NEWS 13 JUL 02 LMEDLINE coverage updated
NEWS 14 JUL 02 SCISEARCH enhanced with complete author names
NEWS 15 JUL 02 CHEMCATS accession numbers revised
NEWS 16 JUL 02 CA/CAplus enhanced with utility model patents from China
NEWS 17 JUL 16 CAplus enhanced with French and German abstracts
NEWS 18 JUL 18 CA/CAplus patent coverage enhanced
NEWS 19 JUL 26 USPATFULL/USPAT2 enhanced with IPC reclassification
NEWS 20 JUL 30 USGENE now available on STN
NEWS 21 AUG 06 CAS REGISTRY enhanced with new experimental property tags
NEWS 22 AUG 06 BEILSTEIN updated with new compounds
NEWS 23 AUG 06 FSTA enhanced with new thesaurus edition
NEWS 24 AUG 13 CA/CAplus enhanced with additional kind codes for granted patents

NEWS EXPRESS 29 JUNE 2007: CURRENT WINDOWS VERSION IS V8.2,
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 05 JULY 2007.

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS LOGIN Welcome Banner and News Items
NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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FILE 'HOME' ENTERED AT 22:49:18 ON 19 AUG 2007

=> file reg
COST IN U.S. DOLLARS
SINCE FILE ENTRY . 0.21
TOTAL SESSION . 0.21
FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 22:49:40 ON 19 AUG 2007
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 17 AUG 2007 HIGHEST RN 944994-02-9

DICTIONARY FILE UPDATES: 17 AUG 2007 HIGHEST RN 944994-02-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

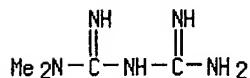
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=> e metformin/cn
E1      1      METFOL-B/CN
E2      1      METFORAL/CN
E3      1  --> METFORMIN/CN
E4      1      METFORMIN CLOFIBRATE/CN
E5      1      METFORMIN HYDROCHLORIDE/CN
E6      1      METFORMIN OROTALE/CN
E7      1      METFORMIN PAMOATE/CN
E8      1      METFORMIN TOLBUTAMIDE SALT/CN
E9      1      METFORMIN-GLIPIZIDE MIXT./CN
E10     1      METFOSFAN/CN
E11     1      METFFPROTEIN (SILICIBACTER POMEROYI STRAIN DSS-3)/CN
E12     1      METG (METHANOSPHAERA STADTMANAE STRAIN DSM 3091 GENE METG)/CN
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=> s e3
L1      1      METFORMIN/CN
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=> d
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L1      ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2007 ACS on STN
RN      657-24-9  REGISTRY
ED      Entered STN: 16 Nov 1984
CN      Imidodicarbonimidic diamide, N,N-dimethyl- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN      Biguanide, 1,1-dimethyl- (6CI, 8CI)
OTHER NAMES:
CN      1,1-Dimethylbiguanide
CN      Dimethylbiguanide
CN      DMGG
CN      Ficonax
CN      Fluamine
CN      Flumamine
CN      Gliguanid
CN      Haurymelin
CN      Melbin
CN      Metformin
CN      Metiguanide
CN      Metphage
CN      N'-Dimethylguanylguanidine
CN      N,N-Dimethyl-imidodicarbonimidic diamide
CN      N,N-Dimethylbiguanide
CN      N,N-Dimethyldiguanide
CN      N1,N1-Dimethylbiguanide
CN      NNDG
CN      Siofor
MF      C4 H11 N5
CI      COM
LC      STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS,
        BIOTECHNO, CA, CABA, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS,
        CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, EMBASE, GMELIN*,
        HSDB*, IFICDB, IFIPAT, IFIUDB, IMSCOSEARCH, IMSDRUGNEWS, IMSPATENTS,
        IMSRESEARCH, IPA, MEDLINE, MRCK*, PATDPASPC, PHAR, PROMT, PROUSDDR, PS,
        RTECS*, SCISEARCH, SPECINFO, SYNTHLINE, TOXCENTER, USAN, USPAT2,
        USPATFULL
        (*File contains numerically searchable property data)
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Other Sources: EINECS**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2712 REFERENCES IN FILE CA (1907 TO DATE)
50 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
2722 REFERENCES IN FILE CAPLUS (1907 TO DATE)
19 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> s glyburide/cn
L2 1 GLYBURIDE/CN

=> d

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN
RN 10238-21-8 REGISTRY
ED Entered STN: 16 Nov 1984
CN Benzamide, 5-chloro-N-[2-[4-[[[(cyclohexylamino)carbonyl]amino]sulfonyl]phenyl]ethyl]-2-methoxy- (CA INDEX NAME)
OTHER NAMES:
CN 1-[4-[2-(5-Chloro-2-methoxybenzamido)ethyl]phenylsulfonyl]-3-cyclohexylurea
CN 1-[p-2-(5-Chloro-o-anisamido)ethylphenylsulfonyl]-3-cyclohexylurea
CN 1-[-p-[2-(5-Chloro-o-anisamido)ethyl]phenyl]sulfonyl]-3-cyclohexylurea
CN Abbenclamide
CN Adiab
CN Antibet
CN Apo-Glibenclamide
CN Azuglucon
CN Bastiverit
CN Benclamin
CN Betanase
CN Betanaz
CN Betanese 5
CN Calabren
CN Cytagon
CN Daonil
CN Daonil N
CN Debtan
CN Dia-basan
CN Diaben
CN Diabeta
CN Diabiphage
CN Dibelet
CN Duraglucon
CN Euglucan
CN Euglucon
CN Euglucon 5
CN Euglykon
CN GBN 5
CN Gilemal
CN Gl
CN Glamide
CN Gliban
CN Gliben
CN Gliben-Puren N
CN Glibenclamide
CN Glibenil
CN Glibens
CN Glibesyn
CN Glibet
CN Glibetic
CN Glibil

CN Gliboral
 CN Glicem
 CN Glidiabet
 CN Glimel
 CN Glimide
 CN Glimidstada
 CN Glisulin
 CN Glitisol
 CN Glyburide

ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY

MF C23 H28 Cl N3 O5 S

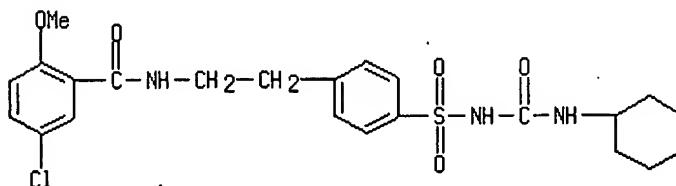
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LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS, BIOTECHNO, CA, CABA, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IMSCOSEARCH, IMSPATENTS, IPA, MEDLINE, MRCK*, PIRA, PROMT, PS, RTECS*, SCISEARCH, SPECINFO, TOXCENTER, USAN, USPAT2, USPATFULL

(*File contains numerically searchable property data)

Other Sources: EINECS**, WHO

(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3575 REFERENCES IN FILE CA (1907 TO DATE)

34 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

3584 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file merck
 COST IN U.S. DOLLARS
 FULL ESTIMATED COST

SINCE FILE
 ENTRY 14.25
 TOTAL
 SESSION 14.46

FILE 'MRCK' ENTERED AT 22:50:31 ON 19 AUG 2007

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FILE COVERS FROM LATE 19TH CENTURY TO PRESENT. LAST UPDATE: OCTOBER 2005

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=> d his

(FILE 'HOME' ENTERED AT 22:49:18 ON 19 AUG 2007)

FILE 'REGISTRY' ENTERED AT 22:49:40 ON 19 AUG 2007
 E METFORMIN/CN

L1 1 S E3
 L2 1 S GLYBURIDE/CN

FILE 'MRCK' ENTERED AT 22:50:31 ON 19 AUG 2007

=> s 11
 L3 1 L1

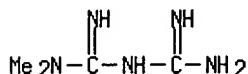
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L3 ANSWER 1 OF 1 MRCK COPYRIGHT (C) 2007 Merck and Co., Inc., Whitehouse Station, New Jersey, USA. All rights reserved. on STN

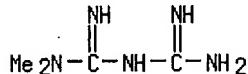
MERCK Number (MNO) : 5963
 CAS Registry No. (RN) : 657-24-9
 MERCK Index Name (MIN) : Metformin
 CA Index Name (CN) : N,N-Dimethylimidodicarbonimidic diamide
 Synonym(s) (CN) : 1,1-dimethylbiguanide; N,N-dimethyldiguanide;
 N'-dimethylguanylguanidine; DMGG

Drug Code(s) (CN) : LA-6023
 Molecular Form. (MF) : C4 H11 N5
 Wgt Composition (COMP) : C 37.20%, H 8.58%, N 54.22%.
 Molecular Weight (MW) : 129.16

References (RE) : Oral hypoglycemic agent. Prepn: Werner, Bell, J. Chem. Soc. 121, 1790 (1922); Shapiro et al., J. Am. Chem. Soc. 81, 3728 (1959). Use as antidiabetic: J. J. Sterne, US 3174901 (1965 to Jan Marcel Didier Aron-Samuel). Toxicity: Rx Bulletin 3, 25 (1972). Determn in plasma: S. AbuRuz et al., J. Chromatogr. B 798, 203 (2003). Clinical pharmacokinetics: G. T. Tucker et al., Br. J. Clin. Pharmacol. 12, 235 (1981). Review of pharmacology: L. S. Hermann, Diabete Metab. 5, 233-245 (1979). Metabolic effects and mechanism of action study: M. Stumvoll et al., N. Engl. J. Med. 333, 550 (1995). Review of efficacy in polycystic ovary syndrome: J. M. Lord et al., Br. Med. J. 327, 951-955 (2003); in type 2 diabetes mellitus: S. M. Setter et al., Clin. Ther. 25, 2991-3026 (2003).



== DERIVATIVE == (1) : Hydrochloride
 CAS Registry No. (RN.DRV) : 1115-70-4
 Trade Name(s) (CN.DRV) : Debecone (Armstrong); Diabex (Merck KGaA); Glucophage (Merck KGaA); Metiguanide (Novo)
 Molecular Form. (MF.DRV) : C4 H11 N5 . Cl H
 Wgt Composition (COMP.DRV) : C 29.01%, H 7.30%, N 42.29%, Cl 21.41%.
 Molecular Weight (MW.DRV) : 165.62



HCl

Melting Point (MP.DRV) :

Deriv. Number	Derivative Type	Value MP.DRV deg C	Note
1	Hydrochloride	232 218 - 220	(Werner, Bell) (uncorr) (Shapiro)

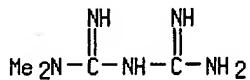
Toxicity (TOX.DRV) :

LD50 in rats (mg/kg) : 1000 orally, 300 s.c. (Rx Bulletin).

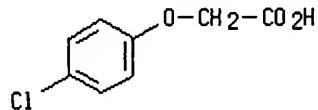
Other Properties (OCPP.DRV) :

Prisms from water, mp 232° (Werner, Bell); crystals from propanol, mp 218-220° (uncorr) (Shapiro). Sol in water, 95% alcohol. Practically insol in ether, chloroform. LD50 in rats (mg/kg) : 1000 orally, 300 s.c. (Rx Bulletin).

== DERIVATIVE == (2) : p-Chlorophenoxyacetate (salt)
 CAS Registry No. (RN.DRV) : 25672-33-7
 Trade Name(s) (CN.DRV) : Glucinan (Merck KGaA)
 Molecular Form. (MF.DRV) : C4 H11 N5 . C8 H7 Cl O3
 Wgt Composition (COMP.DRV) : C 45.64%, H 5.75%, N 22.18%, Cl 11.23%, O 15.20%.
 Molecular Weight (MW.DRV) : 315.76

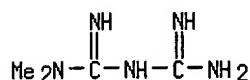


CM 2

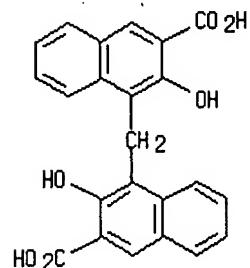


== DERIVATIVE == (3) : Embonate
 CAS Registry No. (RN.DRV) : 34461-22-8
 Synonym(s) (CN.DRV) : Metformin pamoate
 Trade Name(s) (CN.DRV) : Stagid (Merck KGaA)
 Molecular Form. (MF.DRV) : (C4 H11 N5)2 . C23 H16 O6
 Wgt Composition (COMP.DRV) : C 57.57%, H 5.92%, N 21.66%, O 14.84%.
 Molecular Weight (MW.DRV) : 646.70

CM 1



CM 2



Therapeutic Codes (THER) :
 Antidiabetic. In treatment of polycystic ovary syndrome.
 Referenced Patent (RPN) :
 US3174901

=> s 12
 L4 1 L2

=> d all

L4 ANSWER 1 OF 1. MRCK COPYRIGHT (C) 2007 Merck and Co., Inc.,
 Whitehouse Station, New Jersey, USA. All rights reserved. on STN
 MERCK Number (MNO) : 4491
 CAS Registry No. (RN) : 10238-21-8
 MERCK Index Name (MIN) : Glyburide
 CA Index Name (CN) : 5-Chloro-N-[2-[4-[[[(cyclohexylamino)carbonyl]amino]sulfonyl]phenyl]ethyl]-2-methoxybenzamide
 Synonym(s) (CN) : 1-[[p-[2-(5-chloro-o-anisamido)ethyl]phenyl]sulfonyl]-3-cyclohexylurea; N-[4-(β-(2-methoxy-5-chlorobenzamido)ethyl)benzosulfonyl]-N'-cyclohexylurea; N1-[4-(β-(2-methoxy-5-

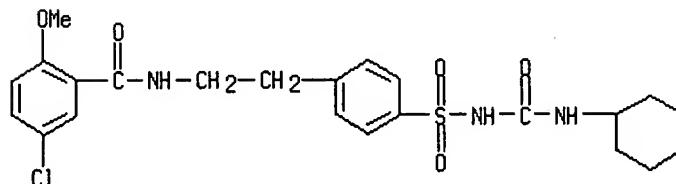
Drug Code(s) (CN): HB-419; U-26452
 Trade Name(s) (CN): Azuglucon (Azupharma); Bastiverit (Bastian-Werk);
 Diabasan (Biofarma); Diabeta (Sanofi-Aventis); Daonil (Sanofi-Aventis); Duraglucon (Dura); Euglucon (Sanofi-Aventis); Gilemal (Chinoin); Glimidstada (Stada); Glycolande (Sanofi-Synthelabo); Libanil (Approved Prescrip.); Maninil (Berlin-Chemie); Micronase (Pharmacia & Upjohn); Praeciglucon (Pfleger)

Molecular Form. (MF): C₂₃ H₂₈ Cl N₃ O₅ S

Wgt Composition (COMP): C 55.92%, H 5.71%, Cl 7.18%, N 8.51%, O 16.19%, S 6.49%.

Molecular Weight (MW): 494.00

References (RE): Second generation sulfonylurea with hypoglycemic activity. Prepn: Aumuller et al., Arzneim.-Forsch. 16, 1640 (1966); NL 6603398 (1966 to Boehringer, Mann.), C.A. 66, 65289h (1967); NL 6610580; H. Weber et al., US 3454635 (1967, 1969 both to Hoechst). Pharmacology: Loubatieres, Mariani, C.R. Seances Acad. Sci. Ser. D 265, 643 (1967). Toxicity: Mizukami et al., Arzneim.-Forsch. 19, 1413 (1969). Series of articles on synthesis, pharmacology, toxicology and clinical studies: ibid. 1323-1494. Effect on release of insulin, glucagon and somatostatin: S. Efendic et al., Proc. Natl. Acad. Sci. USA 76, 5901 (1979). Symposium on pharmacology, mechanism of action and clinical trials: Ann. Clin. Res. 15, Suppl. 37, 1-35 (1983). Comprehensive description: P. G. Takla, Anal. Profiles Drug Subs. 10, 337-355 (1981). Review of pharmacology and clinical efficacy: J. M. Feldman, Pharmacotherapy 5, 43-62 (1985).



Melting Point (MP):

Value		Note
MP		
deg C		

=====+=====

169 - 170 | (Weber)
 172 - 174 | (Aumueller)

Toxicity (TOX):

LD₅₀ in rats and mice (g/kg): >20 orally; >12.5 i.p.; >20 s.c. (Mizukami).

Other Properties (OCPP):

Crystals from methanol, mp 169-170° (Weber); also reported as mp 172-174° (Aumueller). pKa 5.3. Sparingly sol in water, sol in the usual organic solvents. LD₅₀ in rats and mice (g/kg): > 20 orally; > 12.5 i.p.; > 20 s.c. (Mizukami).

Therapeutic Codes (THER):

Antidiabetic.

Other Sources (OS):

CA 66:65289

Referenced Patent (RPN):

NL6603398; NL6610580; US3454635

=> log y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

FULL ESTIMATED COST

ENTRY

SESSION

5.70

20.16